

REMARKS

The rejection of claims 1-8 under 35 USC §103(a) in view of U.S. Patent Nos. 6,552,713 (Van Brocklin) in view of 6,449,858 (Reay) is respectfully traversed on the grounds that

- the Van Brocklin patent fails to disclose or suggest “*a first convex **lens** located upon the housing such that an object may be placed on the first convex lens,*” as originally claimed. Instead, Van Brocklin merely teaches a curved surface for supporting a finger, that may be any shape, and that has no lens properties; and
- the Reay patent does not make up for this deficiency because Reay does not teach the combination of an double convex object-supporting lens for transmitting light to and from an object placed on a surface and a second lens for focusing the light on a sensor, but rather teaches a convex lenses that are paired to decrease the focal length for light refracted from a bubble, both of the convex lenses serving as a focusing lens and neither of the lenses serving as an object-supporting lens for transmitting light reflected by the object.

The claimed invention includes both:

- a first lens with two convex surfaces, on which an object is placed in order to reflect light, and
- a second lens for focusing light on a sensor.

The Van Brocklin patent teaches neither of these lenses. Instead, Van Brocklin teaches an object-supporting structure with at most one convex surface and no second lens at all. Furthermore, the Reay patent does not make up for this deficiency since the Reay patent is directed to an angle sensor that has a wide-angle plano-concave lens 27 and a pair of double convex lenses 28,29, which are used to image radiation from a projection to a flat plane, neither the wide-angle concave lens nor the double convex lenses being an obvious substitution for the object-supporting surface 30 of Van Brocklin. The lenses of Reay are not used for the same purpose as the claimed invention, and Reay does not include *any* teachings that could possibly have

suggested modification of the arrangement of Van Brocklin to replace element 30 with a double convex lens, and to add an additional convex lens between element 30 and the sensor.

According to the Examiner, it would have been obvious to use lenses 28, 29 of Reay in the mouse of Van Brocklin to shorten the focal length. However, Reay teaches use of a pair of double convex lenses to shorten the focal length, and not an arrangement in which a single convex focusing lens is situated between an object-supporting curved surface and a sensor. There is absolutely no teaching in Reay that one of the lenses is used to support an object rather than to shorten the focal lens, and therefore no suggestion for replacing element 30 of Reay with a double convex lens. At best, Reay teaches placing two double convex lenses between element 30 of Van Brocklin and the sensor (assuming for purposes of argument that the ordinary artisan would see a need for reducing the focal length), which does not correspond to the claimed invention.

Instead of a double convex object-supporting surface for transmitting light reflected by the object to the second lens, as claimed, the Van Brocklin patent teaches a single object-supporting surface which may be curved to enhance the “feel” of the surface, but which is not stated to have any lens properties. In fact, Van Brocklin teaches that it does not matter whether the surface is convex or concave since, according to col. 3, lines 3-7, the surface is:

...preferably convexly 'curved' to allow for a similar feel as a trackball-pointing device. The surface may also be curved in a concave fashion similarly to a computer keyboard key.

The teaching of a single surface that is curved to allow for a similar feel, and that may be either convex *or* curved in a concave fashion similarly to a computer keyboard key is clearly, in itself, not even remotely suggestive of the claimed arrangement of a first lens with two convex surfaces and a second lens. Van Brocklin does not include any teachings of a lens with two convex surfaces, much less the dual lens arrangement of the claimed invention.

The Reay patent, on the other hand, teaches an angle sensor for sensing the position of a bubble based on the angle of refraction of radiation through the bubble. Reay is not concerned

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with detecting light **reflecting** from an object on a surface, such as surface 30 of Van Brocklin. The double lenses of Reay are not contacted by any object, much less transmit light to and from such an object, but rather form an integrated focusing lens unit that has a shorter focal length than a single lens. In other words, the double lens structure of Reay is designed to replace a single focusing lens. There is absolutely no reason to use such a structure as a substitute for the surface 30 of Van Brocklin, which is not a focusing lens and for which there is not need for decreased focal length. Such a substitution could only have been made in hindsight, rather than being based on any teachings in either the Van Brocklin or Reay patents, considered in any reasonable combination.

The Examiner is reminded that it is improper to base a rejection on a combination which has no basis in the references themselves, while completely ignoring the intended purposes and functions of the references. As stated in **MPEP 2141.02** (page 2100-107):

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention (emphasis in the original).

In other words, it is not proper to isolate the teachings in Reay of two double convex lenses without also considering, as the ordinary artisan would have done, that the lenses are paired to function together as a focusing lens, and that neither of the lenses is suitable for, or suggestive of, replacing the object-supporting surface of Van Brocklin, which can be convex, concave, or neither, and which is not described as having any focusing properties at all but rather is merely “a curved surface for allowing a similar feel as a trackball-pointing device.”

Because the Reay patent does not reasonably suggest modification of the mouse of Van Brocklin to obtain the invention as presently claimed, withdrawal of the rejection of claims 1-4, 7, and 8 under 35 USC §103(a) is respectfully requested.

Having thus overcome the sole rejection made in the Official Action, expedited passage of the application to issue is requested.

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Respectfully submitted,

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